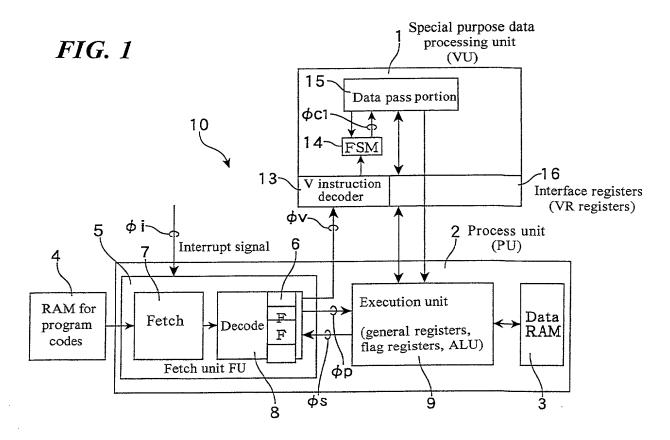
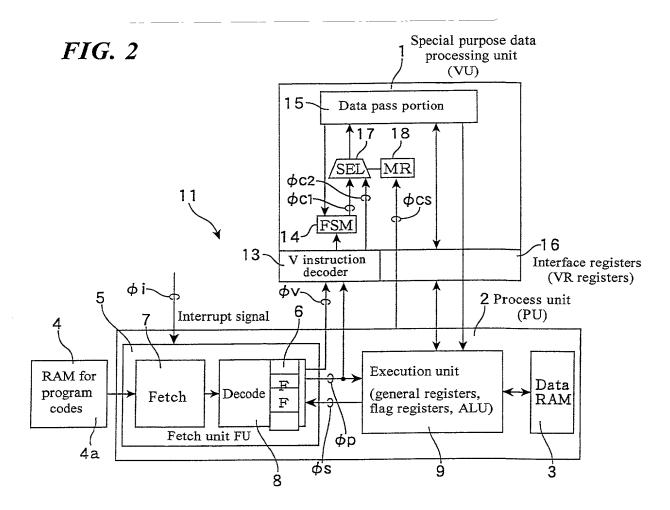
SHEET 1 of 11



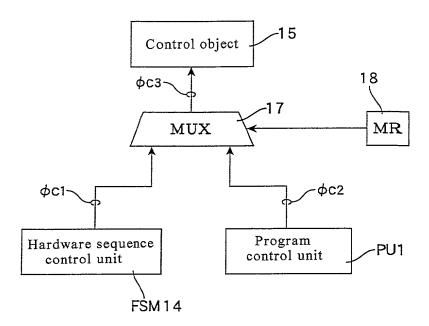
SHEET 2 of 11



APPLN. FILING DATE: AUGUST 22, 2001 TITLE: DATA PROCESSING SYSTEM **INVENTOR(S):** SHOICHI KAMANO ET AL.

SHEET 3 of 11

FIG. 3

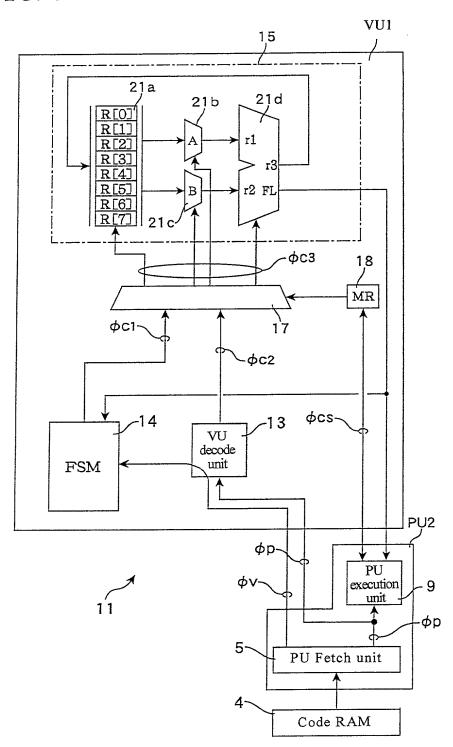


I JAKKA I A LAKKILA

APPLN. FILING DATE: AUGUST 22, 2001 TITLE: DATA PROCESSING SYSTEM INVENTOR(S): SHOICHI KAMANO ET AL.

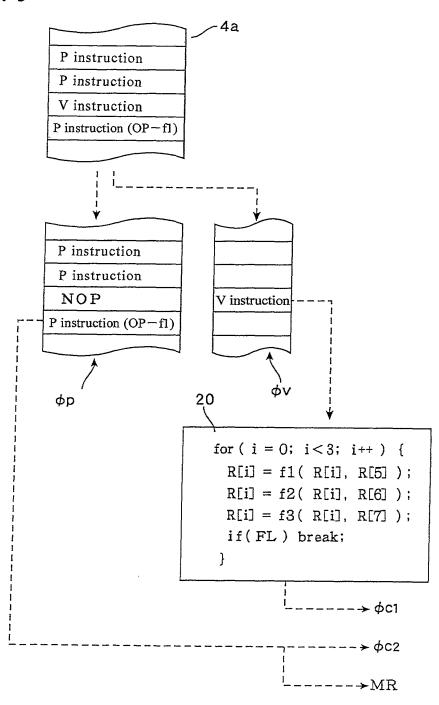
APPLICATION SERIAL NO: 032865-012 SHEET 4 of 11

FIG. 4



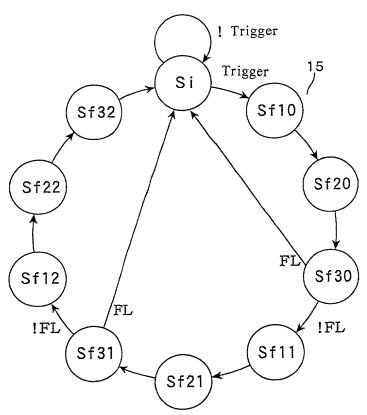
SHEET 5 of 11

FIG. 5



SHEET 6 of 11

FIG. 6



SHEET 7 of 11

FIG. 7

фС1

| Status | Register file read out selection A | Register file read out selection B | Calculation selection | Register file write selection • approve |
|--------|------------------------------------|------------------------------------|--------------------------|---|
| Si | no read out | no read out | no calculation selection | no write |
| Sf10 | R[0] | R[5] | f1 | R[0] |
| Sf20 | R[0] | R[6] | f2 | R[0] |
| Sf30 | R[0] | R[7] | f3 | R[0] |
| Sf11 | R[1] | R[5] | f1 | R[1] |
| Sf21 | R[1] | R[6] | f2 | R[1] |
| Sf31 | R[1] | R[7] | f3 | R[1] |
| Sf12 | R[2] | R[5] | f1 | R[2] |
| Sf22 | R[2] | R[6] | f2 | R[2] |
| Sf32 | R[2] | R[7] | f3 | R[2] |

SHEET 8 of 11

FIG. 8

фс2

| Instruction | Register file read out selection A | | | Register file write selection approve |
|------------------|------------------------------------|----|----|---------------------------------------|
| OP-f1 r3, r1, r2 | r1 | r2 | f1 | r3 |
| OP-f2 r3, r1, r2 | r1 | r2 | f2 | r3 |
| OP-f3 r3, r1, r2 | r1 | r2 | f3 | r3 |

FIG. 9

```
for ( i = 0; i < 3; i++) {

R[i] = f3 ( R[i], R[7] );

R[i] = f2 ( R[i], R[6] );

R[i] = f1 ( R[i], R[5] );

if (FL) break;

}
```

FIG. 10

```
TRIGGER: MOVE MR, #Program control mode
         MOVE 1, #0
LOOP:
         CMP i, #3
         JRC
                           ;if(i-3<0) JMP END
               END
         OP-f3 R[i],R[i],R[7]
         OP-f2 R[i], R[i], R[6]
         OP-f1 R[i],R[i],R[5]
         JRM FL, END
                          ;if(FL) JMP END
               i, i, #1 ; i=i+1
        ADD
        JMP
               LOOP
END:
```

SHEET 10 of 11

FIG. 11

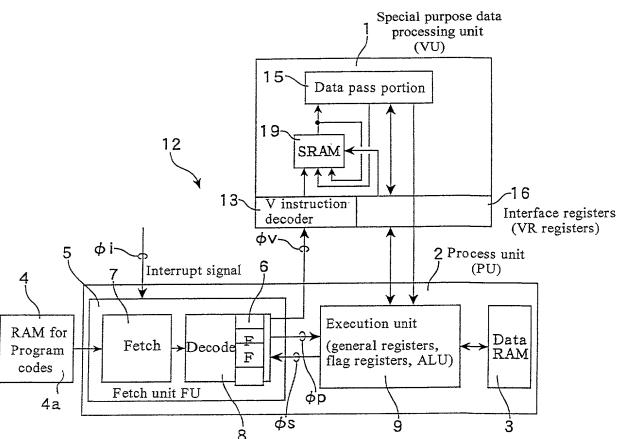
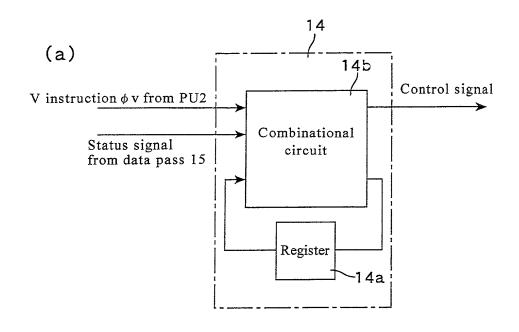


FIG. 12



(b)

